REMARKS

This request for reconsideration (hereafter "request") is fully responsive to the final Office Action dated October 8, 2008, issued in connection with the above-identified application. Claims 1, 3-10 and 12-18 are all the claims pending in the present application. With this request, no claims have been amended, and no new matter has been introduced.

In the Office Action, claims 1, 3-10 and 12-18 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Orr (U.S. Patent No. 6,760,535, hereafter "Orr") in view of Duruoz et al. (U.S. Patent No. 6,658,056, hereafter "Duruoz"). The Applicants assert that the cited prior art fails to disclose or suggest all the features recited in at least independent claims 1 and 10. For example, claim 1 recites the following features:

"[a] recording apparatus comprising:

a continuous recording unit operable to, with use of a recording medium as a ring buffer, realized continuous recording of broadcast content;

a receiving unit operable to receive a specification on a period of time within the broadcast content, wherein said receiving unit displays a menu in which the current time is associated with a time N hours ago prior to the current time, and a retention of a broadcast content after the end of a broadcasting is based on the received specification on the period of time via the menu; and

a setting unit operable to set a protective attribute onto a part of the recording medium corresponding to the period of time, wherein the broadcast content is made up of a plurality of video units, the continuous recording obtains the broadcast content broadcasted from N hours ago to the current time onto the recording medium by, each time a broadcast is received and a new video unit is generated from the received broadcast, overwriting the ring buffer with the generated video unit, and the part of the recording medium having the protective attribute is protected against the overwriting performed by said continuous recording unit; and

a pointer operable to indicate a location of writing in the recording medium, said continuous recording unit being operable to perform the overwriting to the ring buffer by irrespective of whether the ring buffer has been viewed by a user or not, (i) writing the new video

unit to the location of writing indicated by said pointer, and (ii) subsequently adding a size of the new video unit to said pointer,

wherein the recording apparatus is operable to protect against overwriting by adding an offset to said pointer when said pointer reaches a vicinity of the part having the protective attribute such that said pointer skips the part having the protective attribute."

The features noted above in claim 1 are similarly recited in independent claim 10. Additionally, the features noted above are fully supported by the Applicants' disclosure (see e.g., Figs. 8A to 8C and 9A to 9C).

In the Office Action, the Examiner relies on Orr in view of Duruoz for disclosing or suggesting all the features recited in independent claims 1 and 10. However, the Applicants respectfully disagree.

Orr discloses a recording apparatus for archiving content with use of a database. The database in Orr is designed to manage content by adding SHOW TAG, PROTECTED FIELD, and PLAY FIELD (see FIG. 3). In the Office Action, the Examiner relies on column 2, lines 38-46; column 4, line 58-column 5, line 3; column 5, lines 4-21; column 6, lines 49-59; and column 7, lines 57-66 of Orr.

However, column 2, lines 38-46 of Orr discloses a tuner 30 that receives digital signals from the cable 20 and separates audio from video data. Although synchronized, audio and video data have far different data processing requirements. The tuner 30 provides an audio and video data path to an MPEG 2 encoder 40. The MPEG 2 encoder 40 compresses both the audio and video data, and stores the compressed audio and video data on a hard drive 50. Thus, Orr at column 2, lines 38-46 merely describes separation of audio from video data by a tuner and does not give any description regarding continuous recording performed by a continuous recording unit.

Column 4, line 58-column 5, line 3 of Orr discloses that if the writing module must overwrite sufficient data to store a one-hour television program, the writing module first determines a best fit. The best fit includes a group of content files each containing one of several moderately sized content files corresponding to one-hour television programs. The best

fit also includes a group of content files each containing two of many smaller content files corresponding to half-hour television programs. After determining all of the groups within the best fit, the writing module then determines the group that requires deleting a minimum number of files. Accordingly, the writing module selects one of the several moderately sized content files corresponding to one-hour television programs.

Thus, column 4, line 58-column 5, line 3 of Orr describes how targets for overwriting are determined. According to Orr, prior to data overwriting, a best fit is determined to set a target range for overwriting, and thus does not use the continuous recording of the present invention; that is, a recording medium as a ring buffer. Also, the above passage or Orr does not give any description regarding the processing where a new video unit is written to the location of writing indicated by a pointer, wherein subsequently the size of the new video unit is added to the pointer regardless of whether the location of writing indicated by the pointer has been watched or not.

Column 5, lines 4-21 of Orr discloses that in one embodiment, the user can provide user input that forces a selection within the writing module. The digital video recorder is programmable to allow the user to provide the user input. The user input allows a user to manually set a played field for particular entries of the database, according to the user's preferences. The writing module selects a content file for overwriting from among the content files for which played fields are set, based upon a best fit to the content being added.

As noted above, column 5, lines 4-21 of Orr describes that a file for overwriting is determined in accordance with a user input. In contrast, the present invention receives a user input to determine to which part a protective attribute should be set. Accordingly, the processes based on user input are clearly different between Orr and the present invention.

Column 6, lines 49-59 of Orr discloses that according to one embodiment, the show tag 160 field of the content database 150 stores all of the information received within the VBI information (Vertical Blanking Interval). If desired, the VBI may be replaced with a Web-based EPG, DTV data packets, or other way to get program information. In another embodiment, the manufacturer of the digital video recorder 10 configures the digital video recorder 10 to select a subset of the information, and to store only the selected portion of the information within the

show tag 160.

In a third embodiment, the user either programs the digital video recorder 10 to select a user determined subset of the VBI information (Vertical Blanking Interval), Web-based EPG, DTV data packets, or other program information, or selects the subset of the information on a program by program basis.

Each record within the content database 150 also includes a protected field 170. The protected field 170 is a user configurable field that enables the user to prohibit deletion of a programming file. If the user determines that a television program or other programming file within the archive of recorded content 100 should be saved from deletion, then the user can access the protected field 170 of the content database 150 within the record corresponding to the selected programming file. The protected field being operative when set to selectively disable deletion, even when the played field is set.

Thus, column 6, lines 49-59 of Orr describes how a protective attribute is set; that is, what sets a protective attribute to the part to which the protective attribute should be set. However, a protective attribute being set is not a main feature of the present invention. Thus, the above passage of Orr and the features of the present invention are not comparable.

Column 7, lines 57-66 of Orr discloses that the loop from Step 212 to Step 224 continues until the method either finds the last record of the content database 150, or finds a record that has been watched and is not protected. Whenever the method finds a record corresponding to a show that has been watched and is not protected, the method adds the record to a list of deletable shows at Step 218. When the loop encounters the last show in the database, the method determines at Step 232 whether the total data content of the list of deletable shows is at least as great as the data requirements for the show being recorded.

According to Orr, a record targeted for overwriting is added to a list of deletable shows. Since the target of overwriting is listed by such addition, Orr does not describe the continuous recording of the present invention; that is, using a recording medium as a ring buffer. Also, column 7, lines 57-66 of Orr does not give any description on the processing where a new video unit is written to the location of writing indicated by the pointer, wherein subsequently the size

of the new video unit is added to the pointer regardless of whether the location of writing indicated by the pointer has been watched or not.

In summary, it is clear from the description of the above passages of Orr cited by the Examiner that overwriting is performed after the target of overwriting is determined in advance. However, this is not the continuous recording by the continuous recording unit of the present invention; that is, continuous recording using a recording medium as a ring buffer. Nor is this (as described above in Orr) the processing where a new video unit is written to the location of writing indicated by the pointer, wherein subsequently the size of the new video unit is added to the pointer regardless of whether the location of writing indicated by the pointer has been watched or not.

Moreover, Duruoz fails to overcome of the deficiencies noted above in Orr. In the Office Action, the Examiner relies on Duruoz at column 9, lines 45-59, which describes Fig. 3. However, column 9, lines 45-59 of Duruoz discloses a decoder which demultiplexes bit streams. Fig. 3 of Duruoz discloses the raw signal of the incoming bit stream at input 32 entering the DMUX 53 which extracts and sends certain headers to the RISC 61 and routes data through the data bus 50 to an input FIFO buffer 63 in the DRAM 42.

The DMUX 53 then reads the data through the bus 50, separates video, audio and sub-picture data, and then writes this separated data through the bus 50 and into respective separate FIFO buffers: one FIFO buffer 65 for sub-picture data from the host, one FIFO buffer 66 for encoded audio data and one FIFO buffer 67 for encoded video data.

These FIFO buffers 63 have read and write pointers which automatically determine the addresses to and from which the next write and read commands write and read. The positions of these read and write pointers can be read by the RISC 61 and can be set by the RISC 61. As a result, the RISC 61 can move a read pointer of, for example, video FIFO 67 to repeat or skip a picture, and can suppress the advance of the write pointer to prevent or cause a picture from being overwritten to facilitate the repeating skipping, or reordering of pictures where desired. This accommodates frame rate conversions and certain trick play modes. Although the buffers disclosed in Duruoz appear to perform processing using a ring buffer, the following three

differences exist.

First, the targets of the ring buffers are different. The ring buffers in Duruoz target pictures. On the other hand, the ring buffer of the present invention targets a broadcast content from N hours ago to the current time. Thus, the targets of the ring buffers are considerably different between the present invention and Duruoz.

Second, units of exclusion from overwriting are different. According to Duruoz, pictures in the buffer are excluded from overwriting in order to execute frame rate conversions and trick play modes. This is different from protecting the part having a protective attribute set thereto from overwriting.

In summary, the present invention and Duruoz differ from each other with regard to the targets of the ring buffers, and the units of exclusion from overwriting. Also, the passages cited by the Examiner in Duruoz merely describe execution of the frame rate conversions and trick play modes by overwriting the pictures in the FIFO buffers and do not include any description on overwriting of the ring buffer by the continuous recording unit of the present invention.

Based on the above discussion, nothing in Orr and Duruoz (individually or in combination) disclose or suggested a continuous recording unit, which is a feature of the present invention.

Accordingly, no combination or Orr and Duruoz would result in, or otherwise render obvious, independent claims 1 and 10. Additionally, no combination or Orr and Duruoz would result in, or otherwise render obvious, claims 3-9 and 12-18 by virtue of their respective dependencies from independent claims 1 and 10.

In light of the above, the Applicants respectfully submit that all the pending claims are patentable over the prior art of record. Additionally, the Applicants respectfully request that the Examiner withdraw the rejections presented in the outstanding Office Action, and pass this application to issue. The Examiner is invited to contact the undersigned attorney by telephone to resolve any remaining issues.

Respectfully submitted,

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